

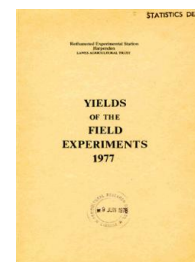
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77/R/B/5 Mixed Varieties and Mildew - Barley

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77/R/B/5

SPRING BARLEY

MIXED VARIETIES AND MILDEW

Object: To study mildew development and yield of variety mixtures sown at different seed rates, with and without a fungicidal seed dressing - Delafield.

Sponsor: J.F. Jenkyn.

Design: 3 randomised blocks of 12 plots.

Whole plot dimensions: 6.40 x 9.14.

Treatments: All combinations of:-

1. VAR SR Varieties and seed rates:

HASSAN 2	Hassan, sown at 160 kg
MIDAS 2	Midas, sown at 160 kg
WING 2	Wing, sown at 160 kg
MIXED 1	Equal parts of the three varieties mixed and sown at 80 kg
MIXED 2	Equal parts of the three varieties mixed and sown at 160 kg
MIXED 3	Equal parts of the three varieties mixed and sown at 240 kg

2. FUNGICIDE Systemic fungicidal seed dressing:

NONE	None
ETHIRIMO	Ethirimol at 15 g per 100 kg seed

NOTE: All plots were separated and surrounded by 12 m of variety Proctor, seed dressed ethirimol at 45 g per 100 kg seed, sprayed tridemorph at 0.53 kg in 340 l on 12 July, 1977. Yields were taken from this crop, adjacent to plots, and used for covariance analysis.

Basal applications: Manures: (20:14:14) at 380 kg, combine drilled. Weedkillers: Mecoprop with bromoxynil and ioxynil ('MAC CMPP' at 2.8 l with 'Oxytril CM' at 1.1 l in 220 l).

Cultivations, etc.: - Ploughed: 27 Oct, 1976. Spring-tine cultivated: 10 Mar, 1977. Sown: 12 Mar. Weedkillers applied: 24 May. Combine harvested: 5 Sept. Previous crops: Beans 1975, wheat 1976.

NOTE: Seedling emergence counts were made. Mildew was assessed on three occasions. Ear counts were made in August.

77/R/B/5

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

	VAR SR	HASSAN 2	MIDAS 2	WING 2	MIXED 1	MIXED 2	MIXED 3	MEAN
FUNGCIDE								
NONE		4.09	4.70	4.38	4.45	4.52	4.57	4.45
ETHIRIMO		3.92	5.03	4.44	4.40	4.42	4.78	4.50
MEAN		4.00	4.86	4.41	4.43	4.47	4.68	4.47

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	FUNGCIDE	VAR SR	FUNGCIDE VAR SR
SED	0.046	0.081	0.114

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	21	0.137	3.1

GRAIN MEAN DM% 83.6

PLOT AREA HARVESTED 0.00260